ZOWIE

Ultrafast Efficient Rectifier

(800V / 0.8A)

SUGC08KH

● FEATURES

* Halogen-free type
* Lead free product, compliance to RoHS
* GPRC (Glass passivated rectifier chip) inside
* Lead less chip form, no lead damage
* Lead-free solder joint, no wire bond & lead frame
* For surface mounted applications
* Low power loss, High efficiency
* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● APPLICATION

* Switching mode power supply applications
* Portable equipment battery applications
* General rectification
* DC / DC Converter
* Telecommunication

● MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled
Terminals : Pure Tin plated (Lead-Free),
solderable per MIL-STD-750, Method 2026.
Polarity : Laser Cathode band marking
Weight : 0.012 gram

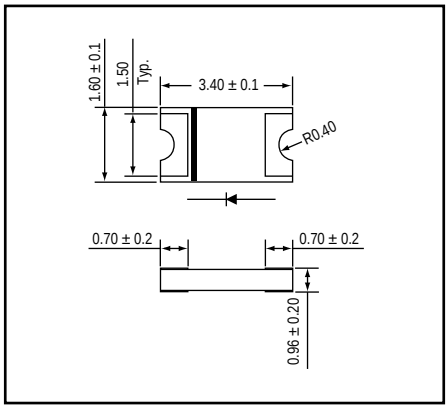
● PACKING

* **3,000 pieces per 7" (178mm ± 2mm) reel**
* **4 reels per box**
* **6 boxes per carton**

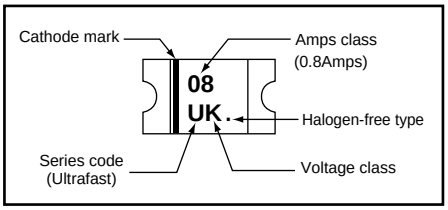
● OUTLINE DIMENSIONS

Case : 1206-S

Unit : mm



● MARKING



Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	SUGC08KH	Unit
Repetitive peak reverse voltage	V_{RRM}	T_L = 25 °C	800	V
Average forward current	$I_{F(AV)}$		0.8	A
Peak forward surge current	I_{FSM}	8.3ms single half sine-wave	15	A
Reverse recovery time	T_{rr}	I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A	35	nS
Operating junction and storage temperature Range	T_j,T_{STG}		-65 to +175	°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F = 0.8A	-	-	2.50	V
Repetitive peak reverse current	I_{RRM}	V_R = Max. V_{RRM} , Ta = 25 °C	-	-	5	uA
Junction capacitance	C_j	V_R = 4V, f = 1.0 MHz	-	10	-	pF
Thermal resistance	$R_{th(JA)}$	Junction to ambient *	-	90	-	°C/W
	$R_{th(JL)}$	Junction to lead *	-	40	-	

* Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

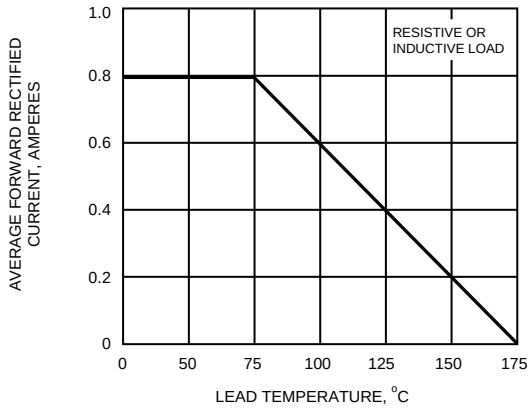


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

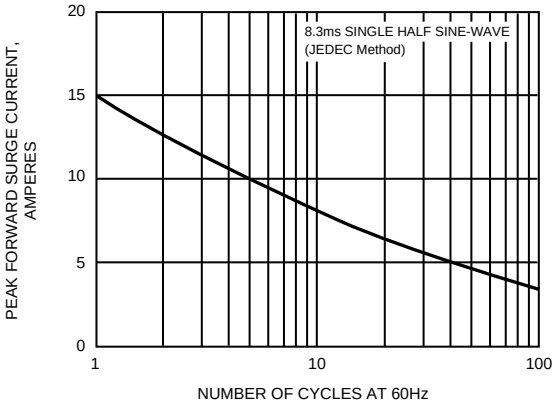


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

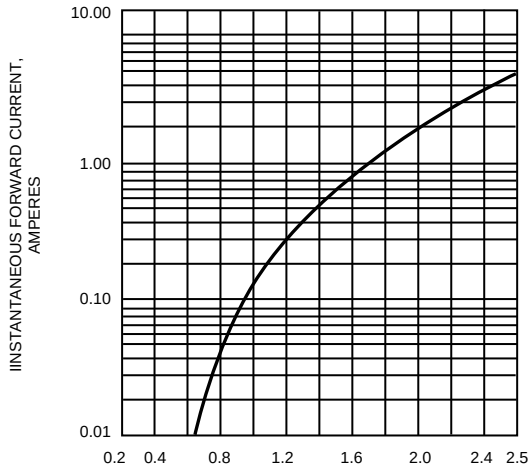


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

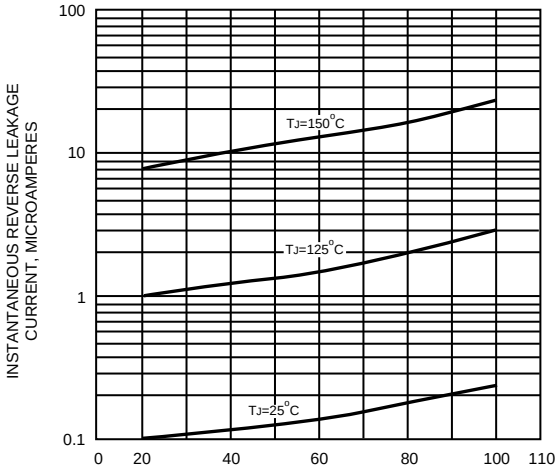


FIG.5 - TYPICAL JUNCTION CAPACITANCE

